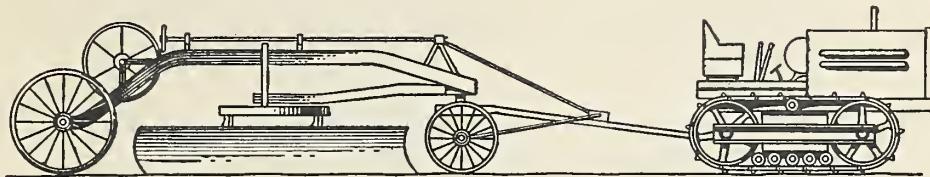


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CONSTRUCTION



HINTS

UNITED STATES DEPARTMENT OF AGRICULTURE, FOREST SERVICE
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On pages 2 and 3 of this issue appear suggestions for the improvement of pipe railings and sketches illustrating the use of other than the ordinary pipe railings. This material was prepared by W. E. Groben, of the Washington office.

A. J. LaCossee, camp mechanic, Camp F-34, Ottawa National Forest, Michigan, designed the "Safety Ladder for Stake Body Trucks, complete with Safety Latch for Tail Gates" which is shown on pages 4 and 5.

The tool trailer described and illustrated on page 6 was designed by A. R. Yale, Junior Forester, Camp Wellston F-68, Manistee National Forest, Michigan. The side view of the trailers shows provisions made for small tools, axes, shovels, mattocks and hoes. Similar provision has been made on the other side for small tools, parts, rakes, forks, canthooks, and crosscut saws. Telephone equipment, jacks, block and tackle are carried on a 2'-0" wide floor space left between the two sides which are 2'-6" deep.

E. S. MASSIE,
Editor.

PIPE RAILINGS
with
Suggestions for their Improvement

1. The habitual use of none but thin, 2" diameter iron pipe for protective guard rails,
2. The excessive use of pipe for railings when, on the contrary, there is scarcely an occasion where they are suitable, and,
3. The use of it where some other material would be much more appropriate, are outstanding mistakes and potential subjects for improvement in design, scale and individuality.

Most noticeable is their threadlike appearance, in connection with large scale structures such as bridges, dams, etc., particularly when erroneously painted white or some other light color.

Pipe railings should be designed with just as much care as any other part of a structure; devoting special study to their starting and ending, diameter, number of horizontal members, spacing of stanchions or vertical supports, painting, etc.

Now, that reflector buttons are an acceptable safety precaution for bridges, the previous, overly conspicuous white painting of guard rails may be discontinued in preference for more harmonious colors such as light French gray with concrete or dark, slate-colored, French gray with stone masonry.

Guard rails composed of horizontal plate members and structural steel supports lend themselves to steel bridges. Not only does their design and appearance harmonize with the structure proper but they may be fabricated simultaneously.

There is an exceptional opportunity to exercise the imagination by designing metal railings in harmony with the respective structures of which they form a part. To invariably use nothing but 2" pipe railing indicates a serious neglect of sufficient attention to this particular detail which frequently mars otherwise attractive structures.

The following sketches offer some timely suggestions for other than the ordinary, commonplace pipe railing.

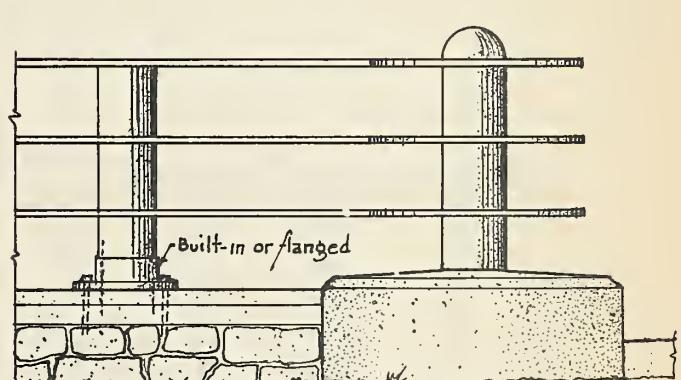
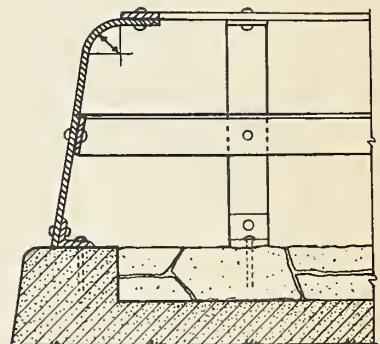
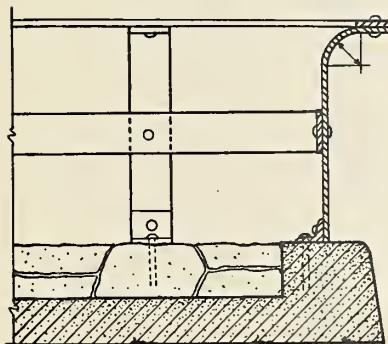
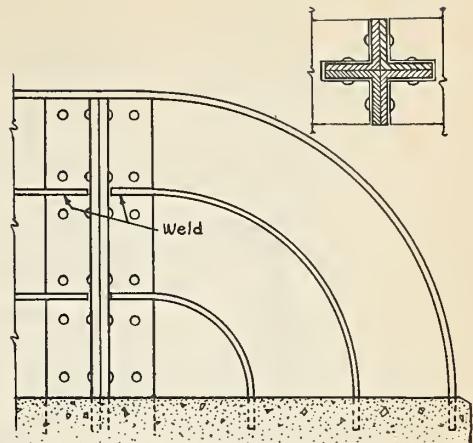


June 15, 1940.

W. ELLIS GROBEN,
Consulting Architect.

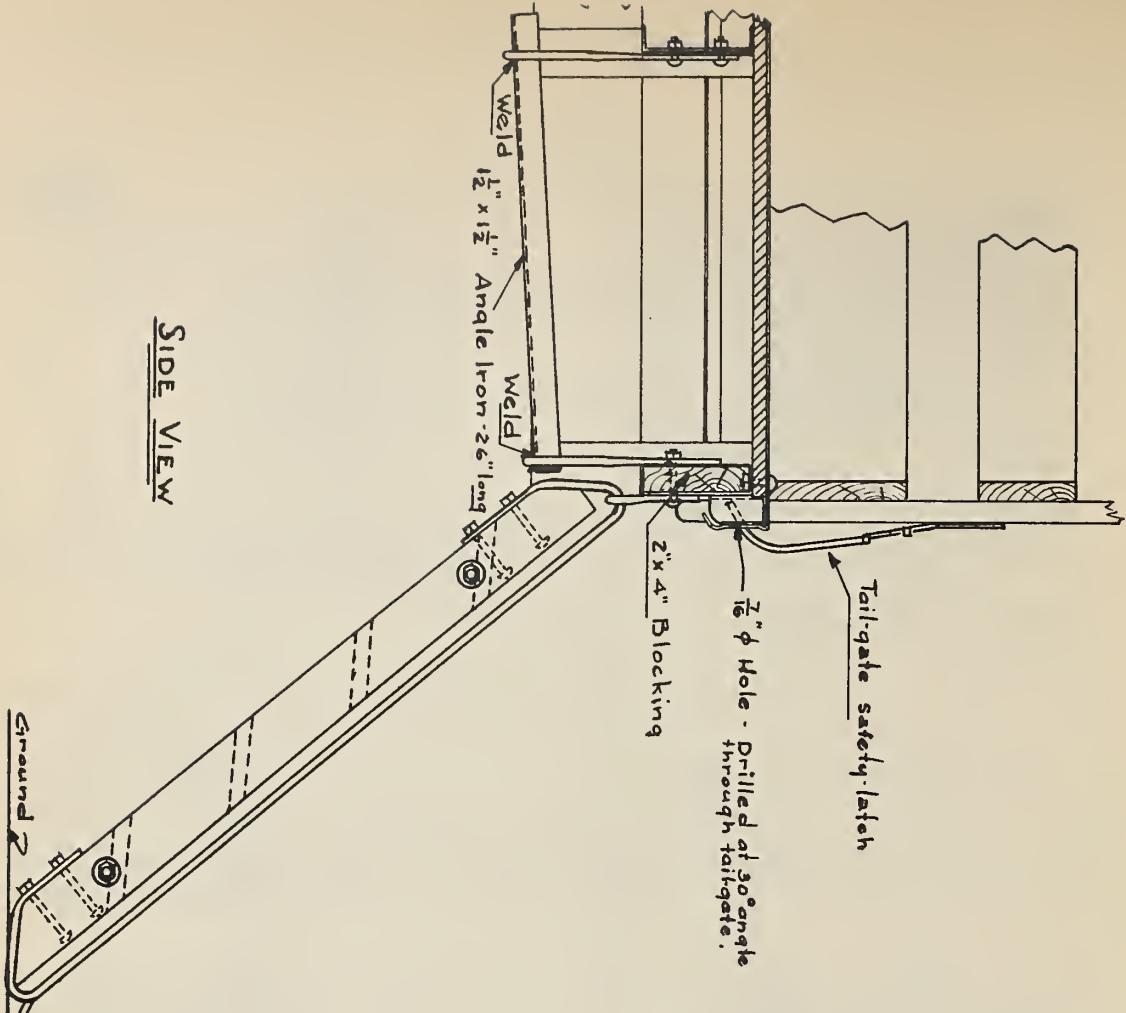


City of New York, Dept., of Parks,
Modigan-Hyland, Engineers.

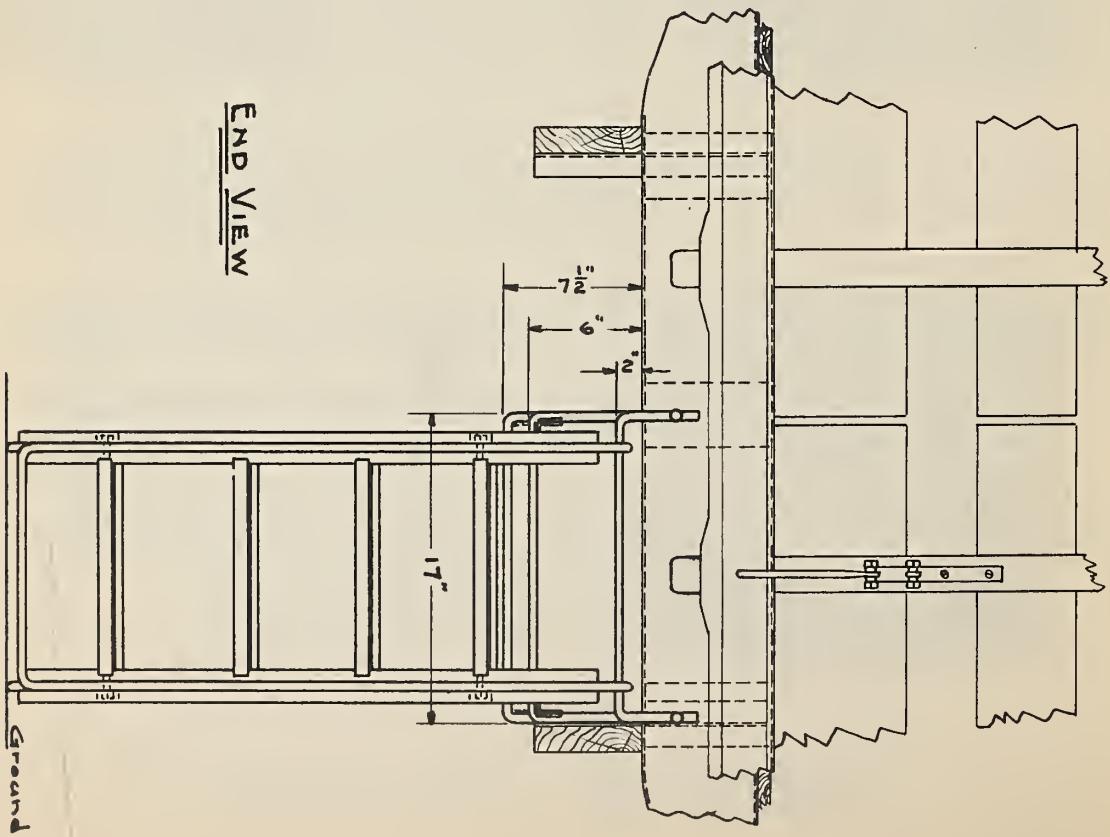


RAILING DESIGNS

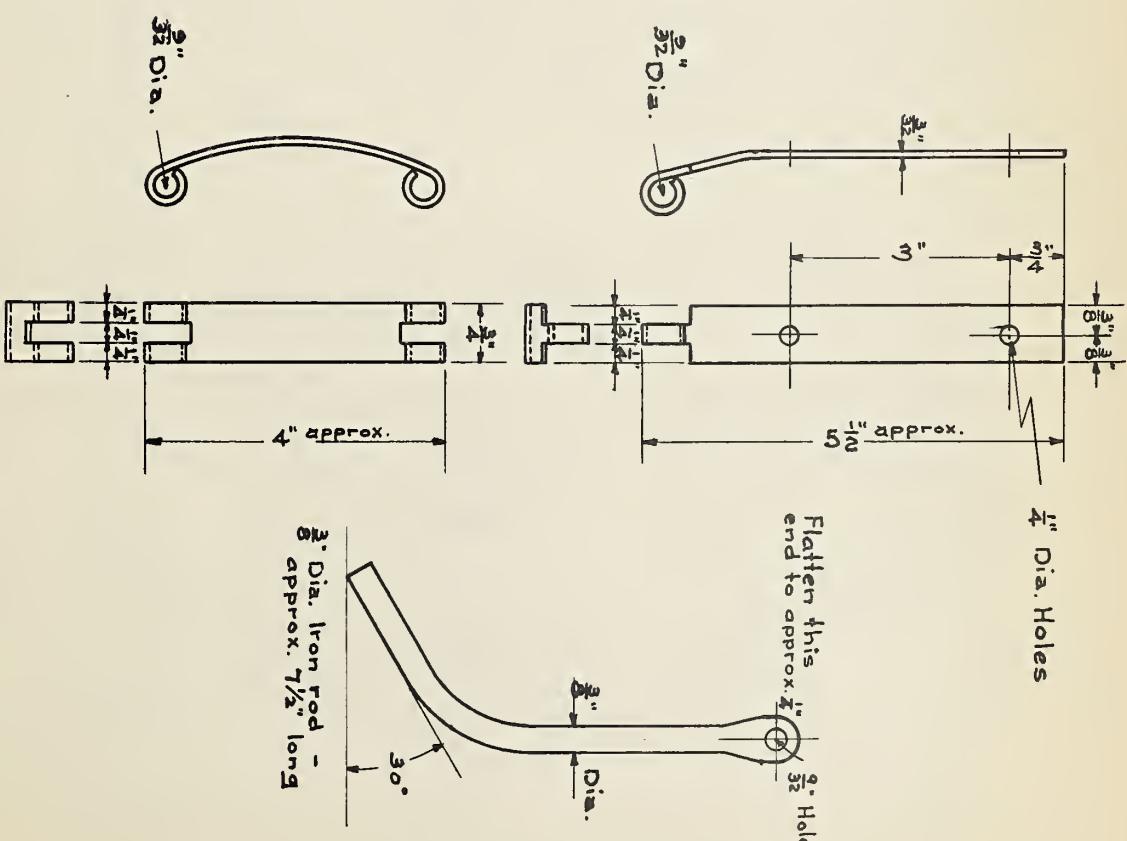
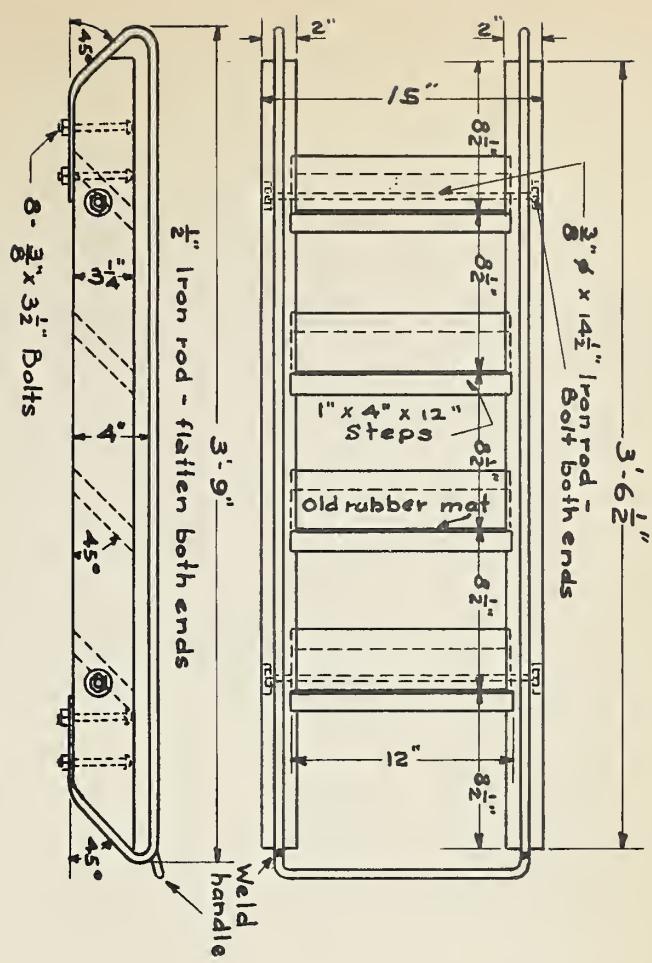
SIDE VIEW



END VIEW



SAFETY LADDER



DETAILS OF SAFETY LATCH
Scale $\frac{1}{2}'' = 1''$

TOOL TRAILER

In an effort to make tools readily accessible in case of fire, several methods have been tried in various camps by putting the tools in moveable or mobile units so that they can be quickly moved. Some of these have rested on wheels, some have been suspended from overhead tracks and some have consisted of small individual units having handles so that they could be carried out by hand.

At Camp Wellston (F-68), Michigan, we chose the first method by using the chassis of an old truck. The spring assemblies were removed and the frame bolted directly to the axles using "U" bolts on the rear axle. The floor was laid on 2x6 cross members set on top of the frame and the enclosed tool compartments built up from this. A center aisle, 2 feet wide was left through the center, lengthwise of the trailer. The sketch and photographs show the arrangement of the tools and compartments.

The towing device is made from channel iron suspended under the front end of the trailer and swiveling at a point in front of the axle. The rear end of the steering device is fastened to the center of the tie rod to give a certain amount of steering effect when the trailer is moved out of the toolhouse during fires or fire drills.

This trailer holds a surprising number of items, taking care of most of the tools in the toolroom. Two such trailers would easily take care of all tools, water cans and other items of property usually stored in the toolroom. It makes for a neat and well organized toolroom and has proven quite satisfactory.

